

Title (en)

POSITIVE ELECTRODE PLATE, ELECTROCHEMICAL DEVICE AND SAFETY COATING

Title (de)

POSITIVELEKTRODENPLATTE, ELEKTROCHEMISCHE VORRICHTUNG UND SICHERHEITSBESCHICHTUNG

Title (fr)

PLAQUE D'ÉLECTRODE POSITIVE, DISPOSITIF ÉLECTROCHIMIQUE ET REVÊTEMENT DE SÉCURITÉ

Publication

EP 3483954 A1 20190515 (EN)

Application

EP 18200219 A 20181012

Priority

CN 201711092394 A 20171108

Abstract (en)

The present invention relates to a positive electrode plate, an electrochemical device and a safety coating. The positive electrode plate comprises a current collector, a positive electrode active material layer and a safety coating disposed between the current collector and the positive electrode active material layer, the safety coating layer comprising a fluorinated polyolefin and/or chlorinated polyolefin polymer matrix, a conductive material and an inorganic filler. The positive electrode plate can quickly open the circuit when the electrochemical device (for example, a capacitor, a primary battery, or a secondary battery) is in a high temperature condition or an internal short circuit occurs, and thus it may improve the high temperature safety performance of the electrochemical device.

IPC 8 full level

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Citation (applicant)

- CN 105594019 A 20160518 - HITACHI CHEMICAL CO LTD
- CN 106558676 A 20170405 - CYG WAYON CIRCUIT PROT CO LTD, et al
- CN 104823313 A 20150805 - UACJ CORP, et al

Citation (search report)

- [X] CN 102344598 A 20120208 - ZHIJUN XIE
- [I] KR 20160143300 A 20161214 - SK INNOVATION CO LTD [KR]
- [A] US 2017309970 A1 20171026 - KIM KYOUNG HO [KR], et al
- [A] US 6150051 A 20001121 - DU PASQUIER AURELIEN [FR], et al
- [A] US 2008241684 A1 20081002 - MURAOKA YOSHIYUKI [JP], et al

Cited by

EP3745512A4; EP3654419A1; US11749870B2

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